

EU DECLARATION OF CONFORMITY

We,

Manufacturer: Elwood Corporation
2701 North Green Bay Road
Racine, WI 53404
United States of America

declare that the products:

"SX" Series DC Brushless (AC Servo) Hazardous Location Motors, Type: M43X-XXXX-8XXX, M43X-XXXX-9XXX, M43X-XXXX-DXXX, M43X-XXXX-EXXX, M44X-XXXX-8XXX, M44X-XXXX-9XXX, M44X-XXXX-DXXX, M44X-XXXX-EXXX, M46X-XXXX-8XXX, M46X-XXXX-9XXX, M46X-XXXX-DXXX and M46X-XXXX-EXXX are designed and manufactured in conformity with the following applicable Directives and Standards:

- ATEX Directive 2014/34/EU

EN IEC 60079-0:2018 Explosive Atmospheres – Part 0: Equipment - General requirements and
EN 60079-1:2014 Explosive Atmospheres – Part 1: Equipment protection by flameproof enclosures “d”



II 2 G, Ex db IIB T3 Gb

For which an EU-Type Certificate DEMKO 16 ATEX 1817X and QAN 18 ATEX Q6378 have been obtained.

declare that the products:

"SX" Series DC Brushless (AC Servo) Hazardous Location Motors, Type: M43X-XXXX-BXXX, M43X-XXXX-CXXX, M44X-XXXX-BXXX, M44X-XXXX-CXXX, M46X-XXXX-BXXX and M46X-XXXX-CXXX are designed and manufactured in conformity with the following applicable Directives and Standards:

- ATEX Directive 2014/34/EU

EN IEC 60079-0:2018 Explosive Atmospheres – Part 0: Equipment - General requirements
and
EN 60079-31:2014 Explosive Atmospheres – Part 31: Equipment dust ignition protection by enclosure “t”




II 2 D, Ex tb IIIC T135°C Db IP6X (Type: M43X & M46X);



II 2 D, Ex tb IIIC T115°C Db IP6X (Type: M44X)

For which an EU-Type Certificate DEMKO 17 ATEX 1923X and QAN 18 ATEX Q6378 have been obtained.

Type M43X  II 2 D, Ex tb IIIC motors comply with IP66 and have been tested according to EN/IEC 60034-5 for which certificates DEMKO 17 ATEX 1923X and CERTIFI Group C190730 have been obtained.

The products further comply to electrical safety requirements, as expressed in:

- 2014/35/EU, the Low Voltage Directive and
- 2014/30/EU, the Electromagnetic Compatibility Directive.

The Notified Body responsible for monitoring the ATEX Directive is UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark. Its Identification Number is 0539.

Technical information is maintained at:

Elwood Corporation – High Performance Motors Group
2701 N. Green Bay Road
Racine, WI 53404

We, the undersigned, hereby declare that the products specified above conform to the listed Directives and Standards.



John Hoepfner
 General Manager
 July 5, 2023

Special Conditions for safe use as specified in EU-Type Examination Certificate DEMKO 16 ATEX 1817X for Type M43X-XXXX-8XXX, M43X-XXXX-9XXX, M43X-XXXX-DXXX, M43X-XXXX-EXXX, M44X-XXXX-8XXX, M44X-XXXX-9XXX, M44X-XXXX-DXXX, M44X-XXXX-EXXX, M46X-XXXX-8XXX, M46X-XXXX-9XXX, M46X-XXXX-DXXX and M46X-XXXX-EXXX.

- Motors are manufactured with permanently connected unterminated conductors and therefore marked with the X to indicate the need for appropriate protection of the free end of the conductors. The supplied lead seal is not sufficient for the protection method of the free end of the conductors. An ATEX/IECEx conduit sealing device(s) complying with the requirements of EN IEC 60079-0:2018/IEC 60079-0 Ed. 7 and EN 60079-1:2014/IEC 60079-1 Ed. 7 must be supplied by the end user.
- If replacement of screws and/or locknuts that secure the front endbell to the stator assembly is necessary, they must be replaced with screws and locknuts having the following dimensions and minimum tensile strength:

Model	Screws	Material	Tensile Strength	Nuts	Material	Tensile Strength
M43X	M4 x 0.7 x 16	steel	1200 N/mm ² ; 174 KSI	M5	steel	810 N/mm ² ; 116 KSI
M44X	M5 x 0.8 x 16	steel	1200 N/mm ² ; 174 KSI	M5	steel	810 N/mm ² ; 116 KSI
M46X	M5 x 0.8 x 25	steel	1200 N/mm ² ; 174 KSI	M5	steel	810 N/mm ² ; 116 KSI

- If replacement of the bolts that secure the rear endbell and the motor cover to the stator assembly is necessary, they must be replaced with M5 x 0.8-6g tie bolts. The bolts must be made of steel and have a minimum tensile strength of 58 KSI. If replacement of lock nuts is necessary, they must be replaced with M5 x 0.8-6H lock nuts. The lock nuts must be made of steel and have a minimum tensile strength of 116 KSI.
- The Motors must be excited with 3-phase sinusoidal currents in proper relationship to the motor's generated voltage or back electromotive force at each rotor position. A pulse-width-modulated (PWM) current amplitude, frequency and phase for operation of the rotor within its specification. The pulse-width modulated switching frequency is specified at a minimum of 3 kHz.
- Flameproof joints are not intended to be repaired, contact Elwood Corp. for information.

Special Conditions for safe use as specified in EU-Type Examination Certificate DEMKO 17 ATEX 1923X for Type M43X-XXXX-BXXX, M43X-XXXX-CXXX, M44X-XXXX-BXXX, M44X-XXXX-CXXX, M46X-XXXX-BXXX and M46X-XXXX-CXXX.

- Ambient operating temperature range: -25°C up to +40°C
- Motors are manufactured with permanently connected unterminated conductors and therefore marked with the X to indicate the need for appropriate protection of the free end of the conductors. The supplied lead seal is not sufficient for the protection method of the free end of the conductors. An ATEX/IECEx conduit sealing device(s) complying with the requirements of EN IEC 60079-0:2018/IEC 60079-0 Ed. 7 and EN 60079-31:2014/IEC 60079-31 Ed. 3 must be supplied by the end user.
- The Motors must be excited with 3-phase sinusoidal currents in proper relationship to the motor's generated voltage or back electromotive force at each rotor position. A pulse-width-modulated (PWM) current amplitude, frequency and phase for operation of the rotor within its specification. The pulse-width modulated switching frequency is specified at a minimum of 3 kHz.